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Re: **Pacific Gas and Electric Company's Reply Comments on the Office of Energy Infrastructure Safety's Working Group Meetings on the Development of Guidelines for Submission of 10-Year Electric Undergrounding Distribution Infrastructure Plans Pursuant to Senate Bill 884**

Dear Ms. Douglas:

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide the following reply comments related to the topics discussed at the five working group meetings that the Office of Energy Infrastructure Safety (Energy Safety) held in November and December 2023[1] on the development of guidelines for submission of 10-year electric undergrounding distribution infrastructure plans (Undergrounding Plans) pursuant to Senate Bill 884 (SB 884). PG&E is supportive of the goal of SB 884 large-scale undergrounding program, which ultimately serves to support a more safe, prosperous, and carbon neutral California.

PG&E reviewed opening comments from the Public Advocates Office at the California Public Utilities Commission (Cal Advocates), Coalition of Utility Employees (CUE), Mussey Grade Road Alliance (MGRA), San Diego Gas & Electric Company (SDG&E), Southern California Edison Company (SCE), and The Utility Reform Network (TURN). Given the limited time available, PG&E's reply comments focus on the following areas:

1. Allowing an electrical corporation to execute its Undergrounding Plan efficiently and effectively;

[1] Working group meetings were held on November 7, 14, 21, and 28 and December 12, 2023.

2. Program costs and benefits;
3. Modifications to an Undergrounding Plan;
4. Alternative mitigations to undergrounding; and
5. Other items including:
    - The schedule for reviewing and approving an Undergrounding Plan;
    - Scope of the Independent Monitor's review;
    - The workforce development plan;
    - Cost/benefit analysis and metrics;
    - Including High Fire Risk Areas (HFRA) and non-High Fire Threat District (HFTD) miles in an Undergrounding Plan; and,
    - Risk modeling recommendations.

I. THE GUIDELINES SHOULD ALLOW AN ELECTRICAL CORPORATION TO EXECUTE ITS UNDERGROUNDING PLAN EFFICIENTLY AND EFFECTIVELY

A. Electrical Corporations Should Consider Wildfire Risk, Reliability, Public Safety, and Cost Efficiency when Prioritizing Projects

SB 884 requires electrical corporations to identify undergrounding projects that will be constructed as part of an overall program, including a means of prioritizing undergrounding projects based on wildfire risk reduction, public safety, cost efficiency, and reliability benefits.[2] SB 884 does not establish one benefit as superior to another; rather it directs an electrical corporation to consider all benefits and to demonstrate that its plan will substantially increase reliability and substantially reduce the risk of wildfire.[3]

Cal Advocates, MGRA, and TURN submitted a letter to Energy Safety and the California Public Utilities Commission (CPUC or Commission) offering key policy principles to guide implementation of SB 884.[4] One of the proposed principles states that undergrounding should be prioritized for the highest-risk locations, where it is most cost-effective given CPUC-defined

[2] Public Utilities Code (PUC) §8388.5(c)(2).

[3] PUC §8388.5(d)(2).

[4] *See* Cal Advocates Comments, p. 2 (describing letter and principles advocated by Cal Advocates, TURN, and MGRA).

safety goals.[5] However, SB 884 is clear that wildfire risk is only one consideration in prioritizing undergrounding projects. Reliability, public safety, and cost efficiency must be considered as well. Requiring an electrical corporation to prioritize its undergrounding plan solely based on the highest wildfire risk locations is in conflict with SB 884's clear language and should not be necessary for Undergrounding Plan approval.

In our Opening Comments, for example, PG&E discussed the importance of prioritizing undergrounding projects based on reliability benefits.[6] We noted that undergrounding will improve overall customer reliability by reducing reliance on wildfire risk mitigation de-energization events such as Public Safety Power Shutoff (PSPS) and Enhanced Powerline Safety Settings (EPSS). Undergrounding will also improve customer reliability during winter storms and other extreme weather events. These are significant benefits from undergrounding that often cannot be replicated by other wildfire mitigations. In addition, undergrounding presents significant public safety benefits in locations that are either rebuilding in the aftermath of a wildfire or presenting ingress/egress constraints and other community risk factors.

Cost efficiency is also a key element of SB 884.[7] Electrical corporations are required to provide an evaluation of project costs that include economies of scale necessary to reduce wildfire risk and mitigation costs.[8] One of the most effective means for reducing program costs is through construction efficiencies. These types of efficiencies include bundling work by geographic location and types of work. With multiple jobs in one region, contractors can pursue longer term leases on lay down yards, they can use equipment more efficiently among their various projects, and limit travel time among different jobs. Requiring an electrical corporation to execute its project plan strictly from highest to lowest risk would eliminate its ability to schedule and execute its approved projects most efficiently.

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[5] Cal Advocates Opening Comments, p. 2.

[6] PG&E Opening Comments, pp. 4-5.

[7] PUC § 8388.5(c)(2).

[8] PUC §8388.5(c)(6).

PG&E strongly opposes parties' recommendation that Undergrounding Plans should be prioritized solely in the highest-risk locations, which treats as surplusage other considerations expressly mentioned by the Legislature. This type of narrow statutory reading, which cherry-picks one factor for focus when the Legislature has identified numerous factors, is contrary to California law.[9] Rather, project selection should include all of the factors expressly identified by the Legislature. And once projects are selected and approved, an electrical corporation should have the flexibility to execute its plan most efficiently without having to schedule projects in a particular wildfire risk order.

B. Electrical Corporations Can Deploy the Best Long-Term Solutions While Mitigating Risk in the Near Term

TURN suggests that unless an electrical corporation is mitigating the highest risk locations first, it is allowing risky conditions to persist and must demonstrate that it is deploying other system hardening alternatives to address those locations.[10] MGRA states the optimal strategy should be to ensure that the maximum number of residents in high risk areas be provided mitigation as soon as possible while undergrounding may delay mitigation for those at extreme risk.[11] These proposals are not well founded.

PG&E, for example, uses an integrated mitigation strategy to manage wildfire risk across our system while we implement permanent risk reduction strategies like undergrounding and other system hardening work.[12] PG&E's objective when scheduling mitigation initiatives is to ensure that we have built sufficient risk mitigation into the system to keep our communities safe as we develop our long-term system hardening programs. PG&E achieves this through a suite of Comprehensive Monitoring and Data Collection programs designed to provide insight into the

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[9] *City of San Jose v. Superior Court*, 5 Cal.4th 47, 55 (1993) ("We ordinarily reject [statutory] interpretations that render particular terms of a statute mere surplusage, instead giving every word some significance.").

[10] TURN Opening Comments, p. 2.

[11] MGRA Opening Comments, p. 6.

[12] PG&E's 2023-2025 Wildfire Mitigation Plan (WMP), R4, p. 407.

changing environmental hazards around our assets and the condition of our equipment (*e.g.*, the Hazard Awareness and Warning Center and wildfire cameras) and Operational Mitigations (*e.g.*, EPSS and vegetation management) that provide on-going risk reduction and influence how we manage the environment around the electric grid. Together, these programs, allow PG&E to manage wildfire risk while implementing longer-term, permanent solutions.[13]

While an undergrounding project generally takes longer than overhead hardening, it also provides greater benefits. PG&E estimates that undergrounding is approximately 97.7 percent effective at reducing ignition risk whereas overhead hardening is only 64 percent effective.[14] Additionally, undergrounding provides near permanent risk reduction and improved reliability; underground lines are not vulnerable to tree strikes caused by high-winds and they are better protected from wildlife, objects, and environmental conditions that cause degradation and failure.[15]

Contrary to recommendations from TURN and MGRA, it is unnecessary for an electrical corporation to deploy other system hardening solutions in high-risk areas if it is protecting its customers using other mitigations in advance of completing planned underground projects. Moreover, it is reasonable to spend the time and resources required to deploy undergrounding because its near permanent risk reduction is the best long-term solution to keep customers and communities safe.

II. PROGRAM COST AND BENEFITS

A. Electrical Corporations Should not be Required to Provide Location-Specific Cost Data

Consistent with SB 884's clear language, an electrical corporation's undergrounding plan should include, among other items, the estimated costs for deploying a certain mitigation.[16]

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[13] PG&E's 2023-2025 WMP, R4, p. 263.

[14] PG&E's 2023-2025 WMP, R4, p. 400, fn. 126 and p. 1059.

[15] *See* PG&E's 2023 General Rate Case (GRC), Application (A.) 21-06-021, Exhibit (PG&E-4), p. 4.3-10.

[16] PUC §8388.5(c)(4) and (6).

Generally, the estimated cost will be presented as an average program-level unit cost (*e.g.*, cost per mile to install covered conductor). Cal Advocates recommends that electrical corporations analyze each wildfire mitigation strategy for each proposed project location using location-specific data which includes terrain, vegetation density, ingress and egress risks, and site accessibility for equipment.[17] PG&E strongly opposes this recommendation because it is extraordinarily burdensome and unnecessary.

Depending on the extent of an Undergrounding Plan, an electrical corporation may conduct hundreds or thousands of individual "projects." The time and effort required to collect location-specific data for *each wildfire mitigation strategy for each proposed project location* would significantly slow progress and increase the costs of an Undergrounding Plan. To collect the type of project or location specific data that Cal Advocates recommends would require design, engineering, and estimating work to occur before a project is even selected for the plan. And if an electrical corporation were to incur these significant costs before a project is selected, it would then need a mechanism to recover those costs if a project was ultimately not selected.

The estimated unit cost that an electrical corporation will provide generally considers the types of cost elements Cal Advocates recommends.[18] In PG&E's case, our estimated undergrounding costs include a feasibility factor specifically addressing water crossings, steep terrain, and hard rock. An average program-level unit cost is reasonable for evaluating an Undergrounding Plan and selecting projects because ultimately the electric corporation will have to provide project level recorded costs demonstrating that it achieved the conditionally approved annual cost cap, average Cost-Benefit Ratio (CBR), unit cost thresholds, and any other conditions of cost recovery that are appropriate for the Commission to impose (e.g., other metrics, such as a net benefits) under the Commission's draft cost recovery guidelines.[19]

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[17] Cal Advocates Opening Comments, p. 5 and p. 5, fn. 15.

[18] Unit costs are discussed further in Section II.B below.

[19] Draft Resolution SPD-15, Staff Proposal, pp. 4-11.

Along with location-specific data, Cal Advocates states that electrical corporations have provided estimated costs and benefits aggregated to the circuit or circuit segment level and claims that such aggregated data is not sufficient for analyzing proposed projects.[20]
Cal Advocates is correct that electrical corporations have analyzed costs and benefits at a circuit or circuit segment level. However, contrary to Cal Advocates' assertion, this is an entirely reasonable approach. In comments submitted to Energy Safety regarding SB 884 Undergrounding Plan guidelines, PG&E recommended defining a "project" at the circuit segment level (also referred to as circuit protection zone or CPZ) because our current risk model measures risk at the circuit segment level. In addition, PG&E explained that after a circuit segment has been identified for undergrounding, projects are scoped and planned for near-term completion (*e.g.*, within 3 – 4 years). PG&E then creates sub-projects or "jobs" which will reflect portions of a CPZ. PG&E identifies jobs accounting for on mileage, risk rank, dependencies (e.g., easements, environmental permitting issues) and constructability.[21] It is not possible to disaggregate cost and benefit information to a more granular level than circuit segment for project selection and evaluation, and Cal Advocates offers no compelling reason for doing so even if it were possible.

B. Defining Project Costs and Benefits

In its Opening Comments, Cal Advocates outlines what elements it believes should be included in project costs and project benefits.[22] PG&E generally agrees with Cal Advocates with certain exceptions discussed below.

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[20] Cal Advocates Opening Comments, p. 5.

[21] PG&E's Response to Energy Safety's Request for Comments and Proposals Regarding SB 884 10-Year Plan Guidelines, November 2, 2023, p. 6.

[22] Cal Advocates Opening Comments, pp. 13-15. Cal Advocates mentions that telecommunication providers argued that a comprehensive cost and benefit analysis should account for impacts on telecommunications services and states that Energy Safety should require utilities to capture all costs and benefits in their analyses. PG&E notes that only an electrical corporation's own costs and benefits should be included in its Undergrounding Plan. It would be inappropriate to include costs and benefits related to other stakeholders, nor could these numbers be verified.

First, PG&E agrees with Cal Advocates that project costs should include engineering, design, construction materials, labor, capital costs, operations and maintenance expenses, and costs to remove the overhead line. In its analyses, PG&E includes additional elements in the definition of project costs such as program management, mapping, internal labor, parts, tools, permitting, and overhead costs. While the costs to dispose of utility assets is part of PG&E's project cost estimate, it is not tracked separately (and could not be reported separately) from the rest of the project.

Second, PG&E agrees with Cal Advocates that project benefits should include avoided vegetation management, inspection, and maintenance costs and costs associated with a PSPS event. Additionally, monetized wildfire risk reduction, reliability, and public safety are also project benefits. PG&E also considers program level benefits, such as residential homeowners insurance premiums and non-residential industry impacts that are not quantified at the project level. These program level benefits are not included in a project CBR but nonetheless benefit PG&E's customers and communities. Ultimately, capturing these avoided costs and benefits are a requirement of SB 884,[23] which PG&E fully supports and is prepared to provide. However, PG&E does not agree with Cal Advocates' proposal to immediately monetize these benefits using a present value calculation. This issue is addressed discussed below in Section II.D.

Third, PG&E does not agree with Cal Advocates that costs to sell or dispose of existing rights-of-ways should be included in project costs.[24] Easements on private property that allow for installation of utility assets are often not transferrable to anyone other than a very similar utility (e.g., telephone, cable, fiber optic) so PG&E often cannot and generally does not sell them. Moreover, these rights-of-way would likely be needed for the newly-undergrounded facilities.

[23] PUC §8388.5(c)(4) and (6).

[24] Cal Advocates Opening Comments, p. 13.

Fourth, PG&E does not agree with Cal Advocates that benefits should include stranded assets or sold or disposed assets[25] because PG&E has no current expectation for revenue from sales of used assets. While Cal Advocates recommends identifying future vegetation management costs as a cost item, PG&E considers avoided future vegetation management and similar costs (*e.g.*, future inspection costs, future maintenance costs, etc.) as project benefits.

C. An Electrical Corporation's Undergrounding Plan Should Include Program Level Lifetime Cost and Benefit Metrics

Cal Advocates recommends that Energy Safety direct electrical corporations to provide certain metrics for each mitigation strategy including the estimated lifetime costs (capital and operating expenses) and estimated lifetime benefits.[26] PG&E supports this recommendation, but the guidelines should allow lifetime costs and benefits for each mitigation strategy to be provided at the program level and not the project level (i.e., CPZ). For example, an electrical corporation would be required to provide the lifetime costs and benefits, including risk reduction and reliability benefits, associated with comparable program level alternatives (*e.g.*, a 500 mile, 10-year plan) that will include at least three scenarios: business as usual (which PG&E refers to as "status quo"), covered conductor plus existing operational mitigations, and undergrounding.

D. It is Unreasonable to Require Electrical Corporations to Credit Forecast Benefits or Exclude them from Cost Benefit Calculations

Cal Advocates recommends that Energy Safety direct electrical corporations to exclude "speculative" operational savings in estimated CBRs for undergrounding unless the electrical corporation can provide evidence to support their inclusion. If an electrical corporation includes such savings in its estimated CBRs, Cal Advocates maintains that the electrical corporation should be required to return the cost savings to ratepayers via a Commission-approved mechanism.[27] There are several fundamental flaws with these proposals.

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[25] Cal Advocates Opening Comments, p. 14.

[26] Cal Advocates Opening Comments, p. 11.

[27] Cal Advocates Opening Comments, pp. 4-5.

First, electrical corporations are required to provide an evaluation of project costs and projected economic benefits over the life of the assets.[28] This evaluation will include data supporting the projected costs and economic benefits. The benefits that are projected to accrue over the life of the asset would be based on an electrical corporation's best estimates at the time the plan is submitted. It is not possible to guarantee what benefits will actually accrue over the 50-year life of the asset, and there are likely benefits not considered in the analysis that will also accrue. During their review of the Undergrounding Plan, stakeholders can raise issues concerning the projected benefits and, if certain benefits are not properly supported, Energy Safety could require that the electrical corporation provide further support. However, Energy Safety should not simply "exclude" forecasted operational savings without any opportunity for an electrical corporation to provide additional supporting data.

Second, electrical corporations routinely forecast project benefits in rate case proceedings and are not required to refund those savings to customers. The savings that accrue because of undergrounding will naturally be reflected in future rate case proceedings by reducing certain forecasts. In PG&E's 2023 GRC, for example, we reduced our forecast for vegetation management in part due to increased undergrounding work and the EPSS program.[29] PG&E strongly recommends that Energy Safety not require electrical corporations to return the estimated cost savings to customers, especially when these benefits may be forecast to accrue over the 50-year life of an asset.

Third, Cal Advocates' proposal regarding returning expected benefits to customers is not appropriately before Energy Safety. Under SB 884, cost issues, including cost recovery and rates, are determined by the CPUC, not Energy Safety.[30] Thus, to the extent Cal Advocates believes that estimated costs should be returned to customers, that is an issue which should be raised with the CPUC, not Energy Safety.

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[28] PUC §8388.5(c)(6).

[29] PG&E 2023 GRC, A.21-06-021, Exhibit (PG&E-4), p. 9-2.

[30] PUC §8388.5(e).

Fourth, Cal Advocates' proposal is unreasonable from a financial and policy perspective. Cal Advocates recommends that "[w]hen a project is complete and its capital costs go into rates, the utility should include a credit for the present value of forecasted operational savings in the annual electric true-up advice letter."[31] In other words, if PG&E estimates over the 75 year life of an undergrounding asset it will save money on tree trimming, PG&E would need to determine the present value of the tree trimming and refund to customers immediately the full present value of those savings over 75 years. This would result in immediate and substantial financial outlays for benefits that are anticipated to occur over decades. Cal Advocates' unprecedented proposal is inconsistent with well-established ratemaking practices that customers pay for costs as they are incurred and receive the corresponding benefits as they occur. Instead, Cal Advocates would require electrical corporations to front-load, for example, 75 years of benefits into a single payment in the first year a project is operational. This proposal should be summarily rejected.

III. MODIFICATIONS TO AN UNDERGROUNDINGPLAN

In our Opening Comments, PG&E proposed that an electrical corporation's Undergrounding Plan establish a framework for selecting and prioritizing projects that can be updated with new data. We reaffirm that the assumptions, underlying data, and risk models that support the framework should be open to review and comments during Energy Safety's approval process, but once the framework is approved, it should not be subject to further review. An electrical corporation should be allowed to update underlying data and risk models that serve as inputs into the project selection and prioritization framework, which could be subject to review through limited discovery.[32]

Various parties agree that a process should be established for making modifications to approved undergrounding plans. SDG&E agrees with PG&E's position, stating that there will likely be changes to the inputs initially used to establish a project selection and prioritization

[31] Cal Advocates Opening Comments, p. 11.

[32] PG&E Opening Comments, Section II.

framework and that changes in the inputs should not trigger the need for additional review or approval but should be reported in the six-month progress reports.[33] Cal Advocates recognizes there will be changes to a 10-year Undergrounding Plan and recommends processes for electrical corporations to request changes to an approved plan.[34] MGRA also recognizes that mechanisms need to be built in to allow for flexibility in a 10-year plan.[35]

Table 1 below summarizes PG&E's proposal as to the appropriate process or venue for consideration of changes.

Table 1 – Processes for Changing Elements of an Undergrounding Plan in SB 884

Line No.	Undergrounding Plan Element	Change Process	Responsible Agency
1	Annual Cost Cap	Expedited Petition for Modification (PFM)	CPUC
2	Average Unit Cost	Expedited PFM	CPUC
3	Average Minimum CBR	Expedited PFM	CPUC
4	Minor Updates/Changes to Project Selection Framework	• Notify parties of an update in the 12-month progress report submitted to Energy Safety. • Allow for limited discovery related to the updated/changed element.	Energy Safety
5	Risk Model(s)	• Notify parties of an update in the 12-month progress report submitted to Energy Safety. • Allow for limited discovery related to the updated/changed element.	Energy Safety
6	Elements of a Project Selection Framework (*e.g.* unit costs, mitigation effectiveness, etc.)	• Notify parties of an update in the 12-month progress report submitted to Energy Safety. • Allow for limited discovery related to the updated/changed element.	Energy Safety

[33] SDG&E Opening Comments, Section II.

[34] Cal Advocates Opening Comments, pp. 7-9.

[35] MGRA Opening Comments, p. 3.

Line No.	Undergrounding Plan Element	Change Process	Responsible Agency
7	New Mitigation Technologies or Construction Techniques	• Notify parties of an update in the 12-month progress report submitted to Energy Safety. • Allow for limited discovery related to the updated/changed element.	Energy Safety
8	Individual Undergrounding Projects	Update in regular progress report submitted to Energy Safety	Energy Safety
9	Workforce Development Strategy	Update in regular progress report submitted to Energy Safety	Energy Safety
10	Sustainable Supply Chain Strategy	Update in regular progress report submitted to Energy Safety	Energy Safety
11	Third Party Funding	Update in regular progress report submitted to Energy Safety	Energy Safety

PG&E's proposed processes for making changes to an Undergrounding Plan include elements that will be part of the Undergrounding Plan that will be reviewed and approved by Energy Safety (Lines 4-11 in Table 1) and the Application that will be reviewed and approved by the Commission (Lines 1-3 in Table 1).

Cal Advocates asserts that the appropriate process for changes should vary depending on the nature of the change and recommends that the Commission and Energy Safety coordinate to avoid conflicts between the guidelines.[36] The proposed change mechanisms in Table 1 above align with Cal Advocates' recommendation by varying the requirements relative to the type of change. PG&E agrees that Energy Safety and the Commission should coordinate to avoid conflicts between the guidelines.

Cal Advocates also proposes several criteria that an electrical corporation must meet to obtain approval for changing an approved plan. PG&E supports certain of these criteria including: describing the change; identifying the circumstance for the change; justifying the change; considering alternative mitigations; providing available and required detail at the CPZ-

[36] Cal Advocates Opening Comments, p. 9.

level described in Section III; describing the impact on wildfire risk and reliability; showing how the CBR for each project and for the plan changes; recalculating reliability impacts; and explaining changes in risk models, cost estimates and prioritization.

However, PG&E does not support other criteria proposed by Cal Advocates including: (1) demonstrating that continuing the original plan is untenable or materially worse than the proposed change; and (2) fully describing the impact of the change on the totality of the approved plan, including how it changes prioritization.[37] First, it is unreasonable to require an electrical corporation to demonstrate that continuing the original plan is "untenable" or "materially worse" than the proposed change. As a preliminary matter, Cal Advocates fails to define the subjective terms that it proposes (*i.e.,* "untenable" and "materially worse"). More importantly, the types of changes that an electrical corporation is likely to make include substituting one project for another, updating data underlying its decision framework (*e.g.*, unit costs, mitigation effectiveness, etc.), and updating its risk model. These types of changes cannot be evaluated in terms of making the original plan "untenable" or "materially worse."

Second, PG&E also does not support describing the impact of each change on the totality of the approved plan and how it changes prioritization. Because an Undergrounding Plan will be made up of hundreds or thousands of individual projects, explaining how simple changes like substituting one project for another will impact the overall plan is unnecessary. The difference in overall wildfire risk reduction when substituting one project for another, for example, would be measured in hundredths or thousandths of a risk percentage point. PG&E agrees that certain changes, notably changes in risk models, could require an electrical corporation to describe how that change would impact the totality of the approved plan. However, it is unreasonable to establish a requirement that an electrical corporation describe the impact of every change on the totality of an approved plan given the differences among potential changes and their impacts.

[37] Cal Advocates Opening Comments, p. 10.

Cal Advocates also recommends that the Commission and Energy Safety allow stakeholders to request changes to an electrical corporation's approved Undergrounding Plan.[38] This recommendation should be rejected. Once Energy Safety approves an electrical corporation's Undergrounding Plan, only the electrical corporation should be allowed to request changes. Stakeholders will have sufficient opportunity during the review process to evaluate and recommend changes to an electrical corporation's Undergrounding Plan. Because an electrical corporation is solely responsible for executing its approved plan, only the electrical corporation should be allowed to make changes to that plan.

IV. ALTERNATIVE MITIGATIONS TO UNDERGROUNDING

In an Undergrounding Plan, an electrical corporation is required to compare undergrounding versus above-ground hardening or any other alternative mitigation strategy.[39] One of MGRA's recommendation is that an electrical corporation compare covered conductor plus Rapid Earth Fault Limiting Conductor (REFCL) on the same circuit segment and covered conductor and non-REFCL advanced technologies.[40] PG&E agrees that an electrical corporation should discuss REFCL and other alternative mitigation strategies as required by SB 884. However, REFCL is applied at the substation level; therefore, it is not possible to do a circuit-by-circuit comparison of covered conductor plus REFCL to other mitigation alternatives. Because certain mitigation strategies, like REFCL, do not lend themselves to a circuit-level analysis, PG&E recommends that the guidelines not require a circuit-level comparison for every mitigation alternative. Additionally, REFCL, or other mitigations, may not be reasonable solutions for every electrical corporation. For example, PG&E initiated a REFCL pilot project in 2018 and has been testing and evaluating the technology since that time. To date, however, PG&E has not successfully implemented REFCL, which means that a system-wide application is not currently a viable mitigation alternative.

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[38] Cal Advocates Opening Comments, p. 9.

[39] PUC §8388.5(c)(4).

[40] MGRA Opening Comments, p. 4.

MGRA also recommends that Energy Safety specify benchmarks for electrical corporation research and development (R&D), pilots, and deployment of advanced technologies.[41] This recommendation is unreasonable because it requires an electrical corporation to provide benchmarks or targets for R&D, pilots, and deployment of advanced technologies despite the fact that this type of work—by its very nature—should be flexible and not prescriptive. The elements of a pilot program (*e.g.*, units installed, locations, and pace of work) often change as an electrical corporation collects information from, and makes adjustments to, the pilot. If an electrical corporation had to comply with specific targets for these pilots, it would not have the flexibility to adjust the pilots and could be forced to continue work solely to meet a target even if the results of the pilot suggest the work should be discontinued.

PG&E supports MGRA's general point that new technologies should be considered as potential changes to an approved Undergrounding Plan as those technologies become available, feasible, and commercially viable.

V. ADDITIONAL ITEMS

A. Schedule for Reviewing and Approving an Undergrounding Plan

TURN recommends that parties providing comments on an Undergrounding Plan have a minimum of 120 days (four months) to develop responsive comments.[42] This recommendation should be rejected given SB 884's expedited nine-month schedule.

SB 884 requires Energy Safety to review and approve or deny an Undergrounding Plan within nine months.[43] TURN is asking for at least four of the nine-month review period for parties to develop comments. Given the participation at the Energy Safety workshops in November and December, it is reasonable to assume that numerous parties will be interested in reviewing and commenting on an electrical corporation's Undergrounding Plan. Therefore, an

[41] MGRA Opening Comments, p. 7.

[42] TURN Opening Comments, p. 3.

[43] PUC §8388.5(d)(2).

electrical corporation will likely receive numerous sets of potentially lengthy and detailed comments, and it will need a reasonable amount of time to respond.

To meet the nine-month legislative requirement, PG&E recommends that the draft guidelines include a proposed schedule establishing a timeline for discovery, party comments, electrical corporation response, draft decision, comments on a draft decision, and any other procedural matters that should be included in the process. In Table 2, PG&E provides a sample schedule for consideration.

Table 2 – Proposed Undergrounding Plan Review and Approval Schedule

Procedural Element	Number of Calendar Days	Calendar Days After Plan Published
Energy Safety Publishes Undergrounding Plan for Public Comment(A)	0	0
Undergrounding Plan Review and Discovery Period	90	90
Parties Submit Comments on Undergrounding Plan	90	90
Electrical Corporation Submits Reply to Party Comments	45	135
Energy Safety Submits Undergrounding Plan Draft Decision	50	185
Stakeholder Comments on Draft Decision on Undergrounding Plan	30	215
Stakeholder Reply Comments on Draft Decision on Undergrounding Plan	20	235
Energy Safety Issues Final Decision on Undergrounding Plan	30	265
(A) Proposed schedule excludes a proposed 10-day pre-submission completeness review. See PG&E's Opening Comments, pp. 12-13.		

TURN also recommends that Undergrounding Plans be subject to discovery on a three-day turnaround.[44] Given the likely complexity of discovery requests and the amount of information that will be requested, this proposal is simply not workable. PG&E recommends that parties respond to discovery requests within five (5) business days. Five business days

[44] TURN Opening Comments, p. 4.

aligns to the Commission's proposed discovery schedule in its Draft Resolution and is a more reasonable amount of time to respond to detailed discovery requests from numerous stakeholders simultaneously.[45] To reduce administrative burden and facilitate the exchange of information among interested parties, PG&E recommends that all parties have access to all discovery responses and be expected to review all other responses to avoid duplicative requests. This can be accomplished through a website or other electronic platform that would allow all parties access to discovery requests and responses. In addition, parties should be directed to work together on reasonable discovery extension requests and to meet and confer as needed to work through discovery concerns.

B. Independent Monitor

Cal Advocates recommends that Energy Safety direct the Independent Monitor to use a "zero-tolerance" standard when assessing a utility's compliance with its Undergrounding Plan and to document and describe all deviations from an approved plan.[46] PG&E agrees that the Independent Monitor's annual review of an electrical corporation's plan compliance is an important part of the SB 884 process.[47] However, Cal Advocates' undefined "zero-tolerance" standard is not supported by the Legislation. SB 884 requires an Independent Monitor to generally assess whether an electrical corporation's progress has been "consistent with the objectives identified in its plan" and to "specify any failure, delays, or shortcomings … and provide recommendations for improvements to accomplish the objectives set forth in the plan."[48] Electrical corporations are then given 180 days to correct and eliminate any deficiency specified in the independent monitor's report.[49] This is the only standard that should be used by the Independent Monitor to assess Undergrounding Plan compliance.

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[45] Draft Resolution, SPD-15, Staff Proposal, p. 4.

[46] Cal Advocates Opening Comments, p. 12.

[47] PUC §8388.5(f)(3).

[48] PUC §8388.5(g)(1).

[49] PUC §8388.5(g)(2).

C. Workforce Development Plan

CUE makes several recommendations regarding the contents of a workforce development plan that an electric corporation will include in its Undergrounding Plan.[50] PG&E agrees with CUE's recommendations that a workforce development plan should include: workforce needs for the entire duration of the Plan; describe how the electrical corporation will meet its workforce needs; identify potential constraints to meeting workforce needs; identify the categories of workers that are needed to execute the Plan and, for each year of the plan, estimate the total number of workers for each job classification; explain training and recruitment activities; describe any potential impacts that an Undergrounding Plan could have on other programs which rely on the same personnel; and include community and labor organization outreach related specifically to workforce development.

PG&E recommends an adjustment to CUE's proposal which stated that an electrical corporation should describe how it will achieve each of these items for every individual year of the Undergrounding Plan. Rather than focusing on individual years, the electrical corporation should provide a strategic workforce development plan that describes how an electrical corporation will address workforce needs over the 10-year life of an Undergrounding Plan, including the items recommended by CUE. As workforce development strategies change, or new constraints arise, an electrical corporation should report on these issues and update its workforce plan as part of its annual report.

Further, CUE recommends that electrical corporations should explain what training and recruitment activities they will undertake to meet the yearly headcount targets for each worker classification and identify the mix of employees and contractors that it will rely on to meet the headcount targets.[51] PG&E does not recommend identifying the mix of employees and contractors needed to meet yearly headcount targets for each worker classification, but instead

[50] CUE Opening Comments, pp. 2-3.

[51] CUE Opening Comments, p. 2.

focus on the total number of resources needed for the various types of positions. An electrical corporation needs the flexibility to rapidly respond to changes in the program-related workforce and market conditions. Over the course of a ten-year program, an electrical corporation will likely need to increase and decrease staffing, and alter the proportion of in-house versus contract workers, across many program elements. This reality will make employee ratio estimates unreliable over the course of a ten-year program. Instead, as stated above, PG&E can provide a backwards looking report of the workforce split as part of its annual report.

D. Cost/Benefit Analysis and Metrics

SCE requests that Energy Safety's draft guidelines clarify that cost-benefit ratios or "CBRs" are only one factor among many to assess risk mitigations and should not be used in isolation to judge whether a proposed mitigation selection is reasonable. Consistent with D.22-12-027, the guidelines should provide flexibility for utilities to explain their proposed wildfire mitigation selections based on factors other than quantitative cost-benefit ratios.[52] SDG&E proposes that an Undergrounding Plan be reviewed across the full scope of ten years to understand the CBRs in addition to the net benefits and overall risk reduction that will be achieved by the end of the plan.[53] PG&E strongly supports these recommendations.[54]

While it is appropriate to include a CBR based on the methodology adopted in the Rulemaking (R.) 20-07-013 proceeding in Undergrounding Plans, the Commission also stated in that proceeding that it does not intend CBR to be the "sole determinant" of risk mitigation strategies.[55] Like any single metric, CBR is limited, in that it provides information on the relationship between costs and benefits, it does not evaluate the absolute magnitude of either. To promote reliability, resiliency, and safety benefits for customers, an electrical corporation should have the opportunity to explain how other factors not included in a CBR calculation impact

[52] SCE Opening Comments, p. 3.

[53] SDG&E Opening Comments, p. 2.

[54] PG&E Opening Comments, pp. 2-4.

[55] D.22-12-027, Finding of Fact 11.

mitigation selection. More specifically, PG&E recommends that Energy Safety follow the CPUC's guidance in D.22-12-027 by allowing an electrical corporation to use both a CBR and other metrics—such as a net benefit metric—for project selection in its Undergrounding Plan. Net benefit (calculated by subtracting costs from benefits at a given location) uses the same inputs as CBR but captures the absolute contribution to risk reduction in HFTDs and HFRAs. Absolute risk reduction benefit, represented in a metric like net benefit, is important when considering the overall Undergrounding Plan risk reduction benefits and not just the risk reduction in a single location.

E. Including High Fire Risk Area and Non-High Fire Threat District Miles in an Undergrounding Plan

SCE supports including circuits outside an HFTD in SB 884 Undergrounding Plans, so long as these areas are minimal and reasonable (e.g., connected to a circuit primarily within the HFTD), and the mileage is justified by the electrical corporation for inclusion.[56] PG&E supports SCE's recommendation. As an example, it would make little sense to preclude 0.5 miles of a ten-mile circuit from being undergrounded because only 9.5 miles of the circuit are in an HFTD. Similarly, we recommend that projects in utility-defined HFRAs be eligible for inclusion in SB 884 Undergrounding Plans as well. These HFRAs represent areas identified by utilities since the adoption of the CPUC-defined HFTDs where there are risk factors for potential wildfires. Permitting projects in HFRAs, and reasonable non-HFTD areas, to be included in Undergrounding Plans submitted pursuant to SB 884 is aligned with the intent of the Legislation to reduce wildfire risk and increase reliability throughout the State.[57]

F. Risk Modeling Recommendations

In its comments, MGRA makes several recommendations related to risk modeling[58] that should not inform Energy Safety's Undergrounding Plan guidelines. While risk model

[56] SCE Opening Comments, p. 3.

[57] PG&E Opening Comments, pp. 7-8.

[58] MGRA Opening Comments, pp. 2-3.

inputs/outputs may be considered during the review of an electrical corporation's Undergrounding Plan, MGRA's general risk modeling recommendations are more appropriately addressed in a utility's Risk Assessment and Mitigation Phase (RAMP) proceeding or as part of the annual Wildfire Mitigation Plan review. PG&E will address MGRA's risk modeling comments in these venues.

G. CONCLUSION

PG&E appreciates the opportunity to provide these comments and looks forward to continuing to partner with Energy Safety and stakeholders on this important work. If you have any questions, please do not hesitate to contact the undersigned at Jamie.Martin@pge.com.

Very truly yours,

/s/ Jamie Martin

Jamie Martin

Cc: Service lists for A.21-06-021, A.23-05-010, and A.22-05-016 and SB 884 Notification List